

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) An *in vitro* system for forming cells of the T cell lineage from stem cells or progenitor cells comprising:

a cell preparation comprising OP9 stromal cells that have been modified to express a Notch ligand that supports T cell lymphopoiesis but does not support B cell lymphopoiesis of stem cells or progenitor cells

wherein the Notch ligand is Delta-like-1 or Delta-like-4 and wherein the T cells produced by the *in vitro* system comprise T cells of one or more of the following lineages:

(a) TCR- $\alpha\beta$ ⁺ CD4⁺CD8⁺ T cells; and/or

(b) TCR- $\gamma\delta$ ⁺ T cells.

2. (Previously presented) An *in vitro* system of claim 1 wherein the Notch ligand induces T cell lineage commitment and differentiation, stage-specific progenitor expansion, TCR gene rearrangement, and T cell differentiation by hematopoietic progenitors and embryonic stem cells in the absence of the thymus.

3. (Cancelled).

4. (Previously presented) An *in vitro* system of claim 1, wherein the stem cells or progenitor cells are selected from hematopoietic progenitor cells, hematopoietic stem cells and embryonic stem cells.

5. – 9. (Cancelled).

10. (Previously presented) An *in vitro* system as claimed in claim 1 wherein the OP9 cells comprise a Delta-like-1 nucleic acid sequence shown in SEQ ID NO:8 or SEQ ID NO:9.

11. (Previously presented) An *in vitro* system as claimed in claim 1 wherein the OP9 cells comprise a Delta-like-4 nucleic acid sequence shown in SEQ ID NO:10 or SEQ ID NO:11.

12. (Currently amended) A method of forming cells of the T cell lineage comprising culturing stem cells or progenitor cells that are capable of differentiating into cells of the T cell lineage with an *in vitro* system of claim 1 to form I cells of the ~~T cell~~ one or more of the following lineages:

(a) TCR- $\alpha\beta$ ⁺ CD4⁻CD8⁺ T cells; and/or

(b) TCR- $\gamma\delta$ ⁺ T cells.

13. (Original) A method according to claim 12 wherein the cells that are capable of differentiating into cells of the T lineage are selected from hematopoietic progenitor cells, hematopoietic stem cells and embryonic stem cells.

14. – 16. (Cancelled).

17. (Previously presented) A method of claim 12 wherein the formed cells are formulated in a pharmaceutically acceptable carrier, auxiliary or excipient.

18. – 21. (Cancelled).

22. (Currently amended) A method for expanding cells of the T cell lineage comprising:

- (a) culturing stem cells or progenitor cells capable of differentiating into cells of the T cell lineage with an *in vitro* system comprising a cell preparation comprising OP9 stromal cells that have been modified to express a Notch ligand that supports T cell lymphopoiesis but does not support B cell lymphopoiesis of stem cells or progenitor cells, wherein the Notch ligand is Delta-like-1 or Delta-like-4 and wherein the T cells produced comprise T cells of one or more of the following lineages:
- (i) CD4⁻ CD8⁻ CD25⁺ CD44⁺ double negative T cells;
 - (ii) CD4⁻ CD8⁻ CD25⁺ CD44⁻ double negative T cells;
 - (ii) ~~TCR- $\alpha\beta$~~ ⁺-CD4⁺ CD8⁺ double positive T cells;
 - (iii) TCR- $\alpha\beta$ ⁺ CD4⁻CD8⁺ T cells; and/or
 - (iv) TCR- $\gamma\delta$ ⁺ T cells; and
- (b) isolating increased numbers of the T cell lineage, wherein the number of cells is increased by at least about 10 to 15 fold.

23. – 49. (Cancelled).